

### **REMARKS**

Claims 1 and 3 through 11 are pending in the application.

Claim 1 has been amended to reflect that beverages in accordance with the invention advantageously include only the xylooligoachharide of the formula (I). Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 4 through 7.

Claim 1 has also been amended to reflect that beverages in accordance with the invention exhibit a more harmonious flavor in comparison to comparable beverages formed without the recited xyloohigosaccharide. Support for this amendment can be found in the Application-as-filed, for example on Page 7, lines 16 through 30 and Page 8, lines 1 through 14.

Applicants respectfully submit that this response does not raise new issues, but merely places the above-referenced application either in condition for allowance, or alternatively, in better form for appeal. Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

#### **The Claimed Invention is Patentable in Light of the Art of Record**

Claims 1 and 3 through 11 stand rejected over JP 10337164 A ("JP 164"); JP 09248153 A ("JP 153") and JP 08056607A ("JP 607") to Shimizu (collectively referred to as "Shimizu") in view of DE 19653354 C1 to Jager et al ("Jager").

It may be useful to briefly consider the invention as recited in the claims before addressing the merits of the rejection.

Sugar imparts a variety of taste impressions to foods. In addition to sweetness, sugar provides a full-bodied flavor impression, thereby allowing many flavorings to appear well balanced. Consequently, it is difficult to achieve a full-bodied flavor impression in sugar-free or reduced-sugar foods, such as foods sweetened with artificial sweeteners.

Attempts have been made to achieve full-bodied character in foods, especially beverages. The use of fructooligosaccharides ("FOS") has been proposed, as disclosed in cited Jager. However, considerable amounts of such FOS, such as up to 10% by weight, must be incorporated into the beverages to produce the desired result. (The Examiner's attention is kindly directed to the Application-as-filed on Page 3, line 24 through Page 4, line 1).

Quite surprisingly, the incorporation of more moderate quantities of FOS, such as quantities within the recited range, can actually have a detrimental effect on the overall taste profile of artificially sweetened beverages. The Examiner's attention is kindly directed to the Application-as-filed on Page 9, lines 1 through 15, in which 2 % FOS was shown to decrease the body and the sweetness duration of an artificially sweetened beverage.

In contrast, Applicants found that the incorporation of particular xylooligosaccharides in moderate amounts imparts a more harmonious flavor to artificially sweetened beverages in comparison to comparable beverages including artificial sweetener alone. Such a result is altogether surprising in light of the detrimental properties imparted by moderate amounts of FOS.

Consequently, the claims are directed to beverages that include xylooligosaccharide of Formula (I) and at least one intense sweetener. The xylooligosaccharide is advantageously present within the beverage in amounts ranging from 0.01 to 2 % by weight. The recited beverages exhibit a more harmonious flavor in comparison to beverages without the xylooligosaccharide of Formula (I), as further recited in the claims-as-amended.

In contrast to the opinion apparently urged within the Office Action, Shimizu does not broadly disclose or suggest the use of any and all xylooligosaccharides. Shimizu instead requires a specific mixture of particular xylooligosaccharides. The Examiner's attention is kindly directed to JP 164, in which Shimizu notes that the use of "a xylooligosaccharide having a specific sugar composition." Considered in their entirety, Shimizu clearly requires xylose within his specific xylooligosaccharide composition. In fact, Shimizu's xylooligosaccharide mixtures may contain up to 55 % xylose. Although noting the exact composition of the xylooligosaccharide mixture, Shimizu's English Abstracts are silent as to the total amount of the xylooligosaccharide mixture used within the beverages.

Shimizu thus does not teach or suggest the recited beverages in which the entirety of the xylooligosaccharide consists of xylooligosaccharide of the Formula (I) that clearly excludes xylose.

Applicants respectfully reiterate that Shimizu teaches away from the recited absence of xylose by specifically requiring its presence. Applicants further respectfully submit that to modify Shimizu, directed to a specific xylooligosaccharide composition, so as to remove its required xylose would change its principle of operation. MPEP 2143.01

Applicants further submit that Shimizu teaches away from the recited intense sweeteners by using its xylooligosaccharide composition alone to produce mildly sweet beverages.

And Shimizu, silent as to the amount of its xylooligosaccharide composition, most certainly does not teach or suggest recited inclusion of the xylooligosaccharide of Formula (I) within beverages in amounts ranging from 0.01 to 2 % by weight.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of Shimizu, considered either alone or in combination with Jager.

Jager is merely directed to the use of fructooligosaccharides, such as inuline and oligo-fructose, to increase the sweetening power of an acesulfame K/aspartame mixture. Jager, evidencing the state of conventional wisdom in regards to fructooligosaccharides, indicates that the fructooligosaccharide is present in amounts ranging from 2.5 to 5.0 %. (Page 4, lines 29 through 32).

Consequently, Jager does not teach or suggest beverages comprising at least one xylooligosaccharide, and most certainly not xylooligosaccharide of formula (I). In fact, considered in its entirety Jager teaches away from the use of the recited xylooligosaccharides altogether by instead disclosing the incorporation of fructooligosachharides.

Nor does Jager teach or suggest beverages including the recited amounts of xylooligosaccharide. Rather, Jager expressly teaches the incorporation of from 2.5 to 5.0% fructooligosaccharide. As noted above, such elevated amounts are consistent with conventional wisdom.

Jager thus does not teach or suggest the recited presence of xylooligosaccharides, much less such xylooligosaccharides in amounts ranging from 0.01 to 2 wt %. Consequently, Jager most certainly does not teach or suggest the incorporation of xylooligosaccharides in amounts ranging from about 0.01 to 0.9 wt %, as recited in Claim 4. As noted above, Jager instead teaches away from such amounts by incorporating significantly greater amounts of saccharides into his compositions.

Accordingly, Applicants respectfully submit that the claimed invention is likewise patentable in light of Jager, considered either alone or in combination with Shimizu.

Applicants respectfully reiterate that there would have been no motivation to have combined these references. The previous rejection is based upon picking and choosing elements from the prior art using the instant specification as the guide for that selection

process. Applicants respectfully submit that "obvious to try" is not the standard for patentability.

Shimizu clearly requires xylose in forming beverages having a low level of sweetness. Jager requires significantly different saccharides in much more elevated amounts to increase the sweetening power of particular artificial sweeteners. These are altogether different problems solved.

Applicants' own experimentation teaches away from the combination, as well. In particular, Applicants found that more moderate amounts of saccharide, such as that used in Jager, would be detrimental to the overall taste profile of intensely sweetened beverages. Hence there would have been no reasonable expectation of success for the recited combination. MPEP 2143.02.

The present invention resides in the selection of particular elements, i.e. the xylooligosaccharide of Formula (I) in the recited amounts, from a wide number of possibilities to solve a specific problem, i.e. the provision of a more harmonious flavor to beverages containing intense sweetener(s).

Applicants respectfully submit that, even if combined (which Applicants submit should not be done), the present invention would not result. Applicants respectfully reiterate that the references must be considered as a whole. Shimizu expressly requires the presence of xylose. Jager expressly teaches a saccharide, i.e. fructooligosaccharide, in amounts ranging from 2.5 to 5.0 %.

Consequently, neither Shimizu or Jager, alone or in combination, teach or suggest the recited beverages comprising intense sweetener(s) and non-xylose xylooligosaccharide in an amount from 0.01 to 2.0 %. And the combination most certainly does not teach or suggest the

advantageous embodiments reflected in Claim 4, reciting the presence of such xylooligosaccharide in an amount ranging from 0.01 to 0.9%.

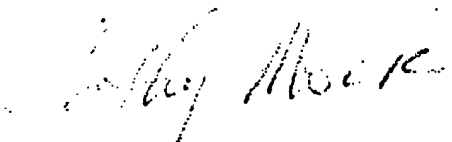
Accordingly, Applicants respectfully submit that Claims 1 and 3 through 11 are patentable in light of Shimizu and Jager, considered either alone or in combination.

### **CONCLUSION**

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 and 3 through 11 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that extensions of time or fees are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time and/or fees are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required is hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,



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